IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

SMART MOBILE TECHNOLOGIES LLC, Plaintiff, v. APPLE INC., Defendant.	Case No. 6:21-cv-00603-ADA-DTG
SMART MOBILE TECHNOLOGIES LLC, Plaintiff, v. SAMSUNG ELECTRONICS CO., LTD., and SAMSUNG ELECTRONICS AMERICA, INC., Defendants.	Case No. 6:21-cv-00701-ADA-DTG

PLAINTIFF'S SUR-REPLY CLAIM CONSTRUCTION BRIEF
REGARDING THE '434 PATENT FAMILY

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I. INTRODUCTION

Defendants' Reply fails to meaningfully respond to Smart Mobile's Responsive Brief, and raises new arguments that are unsupported and incorrect. The Court should construe the claims as Smart Mobile has requested.

II. ARGUMENT

A. "system on a chip"

With respect to "system on a chip," Defendants contend that Smart Mobile's construction "focuses on the number of components included in the chip." This is false—Smart Mobile's construction does not focus on the mere number of components, but rather requires, for example, that the components be for "multiple functions of a system." Smart Mobile's construction is faithful to the definition in the Microsoft Computer Dictionary, Ex. 1006, [Dkt. 68-6], p. 432, to which Defendants have no objection. It is also supported by the specification, Dkt. 66, p. 2; Ex. 1001, [Dkt. 68-1], ¶124, a point to which Defendants have no response. Moreover, Defendants fail to clearly articulate the scope of the term under their "plain meaning" construction, and fail to respond to Smart Mobile's argument that their various conflicting "plain meaning" definitions would just confuse the jury as their expert attempts to articulate them on the stand. Even their argument here—"whether the chip contains a system"—is unclear. The Court should construe the term as Smart Mobile proposes.

B. "is configured to"

Defendants "adopt SMT's proposed construction," so there is no remaining material dispute with respect to the meaning of "configured to"—the Court should adopt Smart Mobile's proposed construction. While Defendants contend that Smart Mobile "acknowledge[d] that 'actually' is understood to be a part of its construction," Smart Mobile acknowledged no such

thing—Smart Mobile's construction does not include the word, and in fact Smart Mobile expressly rejected such a notion:

> The "actually" adjective at the start of Defendants' proposed construction should be rejected as it is redundant and could misleadingly suggest to a jury that something more than hardware or software for the recited function is required.

Dkt. 66, p. 7. Defendants do not distinguish the cases Smart Mobile proffered in support of its construction, nor do they attempt to rebut Smart Mobile's showing that the specification supports its construction. Dkt. 66, pp. 6-7. The Court should adopt Smart Mobile's construction.

C. "wherein a transmission interface is created . . ."

Defendants' Reply principally just reiterates the arguments they made in their Opening Brief, and is deficient for the reasons set forth in Smart Mobile's Responsive Brief. Dkt. 66, pp. 8-14. First, they assert that there is "no clear delineation between the three "'interfaces.'" This ignores the context of the entire limitation, which ***does*** clearly delineate between the interfaces:

> wherein a transmission interface is created and wherein said transmission interface uses a plurality of IP enabled interfaces on the mobile device which utilize the plurality of wireless transmit and receive components on the mobile device to enable a single interface comprised of multiplexed signals from the plurality of wireless transmit and receive components

Ex. 7, [Dkt. 48-7], 12:10-16. There is no lack of clarity concerning the relationship of the three interfaces to one another. Defendants' arguments here ignore the claim language specifying the functions and structure of the transmission interface (red), IP enabled interfaces (blue) and single interface (purple). For example, Defendants contend that a "single interface" is not "commonly understood to a POSITA." This is incorrect, because a POSITA knows what an "interface" is. Dkt. 66, pp. 8-9, 34-39; Ex. 1001, ¶¶140, 182-92. Moreover, even if this were true (and it is

not), the claim itself recites the relationship of the single interface to the other two interfaces. Dkt. 66, pp. 9-11, 34-39; Ex. 1001, ¶¶140-44. Defendants' purported confusion is spurious.

Second, Defendants repeat their assertion that they do not know how one interface could "use" another. They contend that Smart Mobile's explanation lacks "support in the patents," but that is false, as shown in Smart Mobile's Responsive Brief. Dkt. 66, pp. 11-13. And they assert that Smart Mobile's explanation is "contradictory" because Smart Mobile purportedly construes an interface as "a connection point," but this fails because the premise is false. Smart Mobile construes "interface" as a "***virtual*** or physical connection ***between software*** and/or hardware ***elements that enables them to interoperate***," Dkt. 66, p. 34, which is fully consistent with Smart Mobile's explanation of how the transmission interface uses the IP-enabled interfaces, e.g., by sending a signal or data stream through them. Dkt. 66, p. 11; Ex. 1001, ¶145.

Third, Defendants profess still to be confused by the "which utilize" language. There is no basis for their purported confusion, because the claim language is clear: the "plurality of IP enabled interfaces on the mobile device . . . utilize the plurality of wireless transmit and receive components on the mobile device to enable a single interface . . . ." Dkt. 66, p. 13; Ex. 1001, ¶148. The claim recites that the IP enabled interfaces ***utilize*** the transmit and receive components to enable a single interface, not that the single interface is ***comprised of*** the transmit and receive components.

Fourth, Defendants assert that there are multiple ways to interpret "single," and that Smart Mobile seeks to read the word out of the claim. Neither is true. Smart Mobile showed in its Responsive Brief that Defendants' interpretations require lifting the "single interface" language out of context, and that when read in context the meaning is clear—the single interface is "comprised of multiplexed signals from the plurality of wireless transmit and receive

components." Dkt. 66, pp. 13-14. There is nothing in the claim language limiting the entire mobile device to only a single interface or to only a single interface comprised of multiplexed signals, Ex. 1001, ¶¶152-53, so Defendant's purported confusion is a charade.

Defendants must prove indefiniteness by clear and convincing evidence. *Cox Commc'ns, Inc. v. Sprint Commc'n Co. LP*, 838 F.3d 1224, 1231 (Fed. Cir. 2016). Their arguments are unsupported by the specification or the claims, and they do not even attempt to rebut Dr. Cooklev's declaration testimony. Accordingly, they fail to carry their burden.

D. "wherein the first wireless transmit and receive component is enabled to communicate using one or more antennas simultaneously / wherein the first wireless transmit and receive unit is enabled to communicate using one or more antennas simultaneously"

Defendants fail to respond to any of the points Smart Mobile made in its Responsive Brief, or to the expert testimony of Dr. Cooklev explaining how a POSITA would read the claim. Dkt. 66, pp. 14-16; Ex. 1001, ¶¶155-61. Instead, they contend that Smart Mobile asks the Court to rewrite the claim, but that is false—Smart Mobile requests only a plain meaning construction. Defendants also contend that the challenged claim language could reasonably be interpreted in multiple equally plausible ways, but this too is incorrect: of their three suggested "options," only the first—"simultaneous communications using multiple antennas"—is at all consistent with the challenged phrase, and even that only captures a portion of the claim language. Their remaining two purported interpretations—"using multiple transmit and receive components simultaneously," and "sending and receiving data simultaneously"—are unsupported by the challenged claim language, which says nothing about ***using*** transmit/receive components or sending data simultaneously. While Defendants say that each of their options is "inconsistent with surrounding claim language" they fail to explain why that is so; in any event, the assertion is clearly false as to simultaneous use of multiple antennas, which is undeniably consistent with

the surrounding claim language. And none of these new arguments are supported by any expert testimony. They fail to prove indefiniteness at all, much less by clear and convincing evidence.

E. "USB communication"

Defendants do not contest Smart Mobile's showing that the claims and the specification reference "USB" generically, rather than with respect to some particular version of a USB device or protocol. Dkt. 66, pp. 16-17. Accordingly, it does not matter whether USB was an established standard in 1999; there is nothing to suggest that a particular USB protocol or version was significant to the invention, and therefore Defendants' main case, *Fundamental Innovation Sys. Int'l LLC v. Samsung Elecs. Co*., 2018 WL 647734 (E.D. Tex. Jan. 31, 2018), is inapposite. Dkt. 66, p. 17. This is the foundation for Defendants' attempt to limit the claims to 1999 technology, and in its absence their argument collapses.

Next, Defendants mischaracterize the *Uniloc* holding, *Uniloc USA, Inc. v. Apple, Inc.*, 2021 WL 432183 (N.D. Cal. Jan. 15, 2021). *Uniloc* does ***not*** suggest that a standard cannot be construed to cover later extensions of standardized technology; to the contrary, the point of the *Uniloc* holding was to focus the inquiry on whether differences between the earlier standard and the later standard were material to the claimed invention. Dkt. 66, pp. 17-18.

Finally, Defendants attempt, unsuccessfully, to distinguish Smart Mobile's authority. They contend that *SuperGuide Corp. v. DirecTV Enter., Inc*., 358 F.3d 870 (Fed. Cir. 2004) did not involve a technical standard, but Smart Mobile cited this case for the more general point that claim construction does not "freeze" a technology as of the filing date. They attack *Soverain Software LLC v. Amazon.com, Inc*., 2005 WL 6225276, at *4-5 (E.D. Tex. Apr. 7, 2005), on the same basis, but here their argument fails because the *Soverain* case ***did*** involve a standardized protocol – HTTP – and Defendants do not rebut Smart Mobile's showing that the case is analogous on its facts. They contend that Smart Mobile took *Celltrace LLC v. AT & T Inc*., 2011

WL 738927, at *15-17 (E.D. Tex. Feb. 23, 2011) "out of context," but the distinctions to which they point are immaterial to the *Celltrace* court's holding or its applicability here. Finally, they try to distinguish *Cellspin Soft, Inc. v. Fitbit, Inc*., 2021 WL 1417419, at *9-10 (N.D. Cal. Apr. 14, 2021) on the basis that they purportedly "do not seek to limit the term to a specific version number, but rather the USB technology that was known at the time of the patent filing," Dkt. 79, p. 5, but this is risible since (i) the two (version number and time of filing) are correlated, (ii) in their Opening Brief and Reply they repeatedly note that Smart Mobile "accuses devices using newer versions of USB such as USB-C," Dkt. 79, p. 4 n.2, and (iii) this purported distinction is, again, immaterial to the *Cellspin* court's holding or its applicability here. In sum, Defendants fail to rehabilitate their cases or to distinguish Smart Mobile's supporting authority, which is squarely on point. The Court should adopt Smart Mobile's "plain meaning" construction.

F. "dynamically"

Defendants proffer no credible evidence or argument that "dynamically" is indefinite. They assert without evidence that factors for "best data transfer" do not relate to switching antennas, but this ignores the fact that dynamically determining "the best transmission frequencies and protocols" bears directly on switching between antennas, Dkt. 66, p. 20; Ex. 1001, ¶166. Moreover, the point of this citation to the specification is that it informs a POSITA concerning how the patent is using "dynamically;" accordingly, Defendants' assertion would be immaterial even if it were true. And Defendants can do no better regarding Smart Mobile's technical dictionary exhibits than to assert, incorrectly and without explanation, that they "shed no light on the issue." Their indefiniteness argument fails.

G. "ports"

With respect to "ports," Defendants assert that their "jack or socket that a cable connector plugs into" construction is required because "even for wireless communications, the patents

teach physically connecting the claimed device to a cradle adapter, ..." Dkt. 79, p. 6. This is demonstrably false. The cradle adapter to which Defendants point is "***an*** embodiment of the present invention," reflected in one figure out of thirteen and less than one column of text. Ex. 7, 5:46 to 6:19; Fig. 6. The bulk of the specification, and all of the claims at issue, address different embodiments of the invention that are or include mobile/wireless communication devices. So the fact that the specification teaches an alternative embodiment comprising a cradle is immaterial. *TIP Sys., LLC v. Phillips & Brooks/Gladwin, Inc.*, 529 F.3d 1364, 1373 (Fed.Cir.2008). The claimed inventions constitute wireless or handheld devices,[1] the specification principally teaches embodiments of a wireless device, and the invention is repeatedly and consistently referred to in the specification as a "CT/MD," i.e., "cellular telephone/mobile device." Even the titles of the patents refer to "wireless devices" and the like. Accordingly, a construction of "ports" that would tie the claimed invention to a cable would be ludicrous. Dkt. 66, pp. 21-22. Yet that is what Defendants propose.

The remainder of Defendants' arguments fare no better. In response to Smart Mobile's showing that the specification discloses ports used for wireless communication, Defendants observe that wireless communications must be supported by a physical transmit/receive component, and that a mobile device requires an antenna to enable wireless communication. However, they fail to explain why either of these points would foreclose Smart Mobile's construction; in fact, they do not, as Smart Mobile's construction encompasses a physical point of connection. They assert that claim 28 of the '653 Patent "says nothing of 'virtual' ports," but that ignores Smart Mobile and Dr. Cooklev's explanation as to why a POSITA would understand

[1] With the exception of claim 1 of the '863 Patent, which recites a "system" comprising, *e.g.*, a network switch box configured with a plurality of ports. Smart Mobile's construction would encompass the ports of this network switch box.

the claim language to require a plurality of virtual ports, Dkt. 66, p. 22, Ex. 1001, ¶170, and is premised on their incorrect characterization of the invention as a device docked in a cradle. They also ignore the disclosure in the specification of a VPN embodiment, which receives packets over virtual ports. Ex. 7, 8:38-65, Fig.13. They then criticize as conclusory Dr. Cooklev's explanation that "in 1999 and 2000 (as today), wireless ports were typically implemented via a virtual port," but this is not conclusory—it is a statement of fact, and is supported by evidence that Defendants fail to address. Ex. 1001, ¶¶171, 175; Ex. 1003, p. 844.

Defendants next assert that Smart Mobile "would construe 'ports' and 'interface' almost identically" but a simple comparison of the constructions shows that they are different. Defendants assert that neither APIs nor "virtual ports" are found in the intrinsic record, but this too is false. Dkt. 66, pp. 22-24, 37; Ex. 1001, ¶¶170-74, 184-92.

Finally, Defendants reiterate their contention that Smart Mobile's construction would render the claims invalid for lack of written description and enablement, asserting that Smart Mobile has not identified any disclosures in the specification demonstrating compliance with section 112. However, this has it backwards—it is ***Defendants***' burden to prove lack of written description or lack of enablement by clear and convincing evidence, *Vasudevan Software, Inc. v. MicroStrategy, Inc.*, 782 F.3d 671, 682, 684 (Fed. Cir. 2015), and they do not even attempt to try to do so. Nor could they. With respect to written description, the test is "'whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.'" *Id*. (quoting *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed.Cir.2010) (en banc)). The specification need "not speak in haec verba of" the specific construction or claim language in order for the written description requirement to be satisfied. *Id*., at 682-83. Here, the specification informs a

POSITA that virtual as well as physical ports are within the scope of the invention. Dkt. 66, pp. 22-23, 37; Ex. 1001, ¶¶171-73. Defendants do not prove otherwise.

With respect to enablement, the specification need only enable "a person skilled in the pertinent art, using the knowledge available to such a person and the disclosure in the patent document, [to] make and use the invention without undue experimentation." *Northern Telecom, Inc. v. Datapoint Corp*., 908 F.2d 931, 941, 15 U.S.P.Q.2d 1321 (Fed. Cir. 1990). Defendants must prove lack of enablement by clear and convincing evidence. *Id*. Yet they do not even try to prove that a POSITA would be unable to program or configure a virtual port in the context of these patents. Their written description and enablement arguments are spurious. *Id*.

H. "application / applications"

Defendants accept Smart Mobile's construction of "application" as applied to the claims of the patents in the '434 Family, so the Court should adopt Smart Mobile's construction.

I. "one or more subtasks are assigned to one or more channels"

In its Responsive Brief, Smart Mobile showed that Defendants' construction of the "subtasks" phrase was unnecessary, unsupported, and improperly imported unrecited elements from the specification into the claims. Dkt. 66, pp. 26-27. Defendants fail to respond substantively to any of Smart Mobile's arguments, instead simply reiterating that claims must be read in light of the specification. That is true, but falls far short of supporting Defendants' effort to entirely redraft the claim language. In addition, Defendants contend that the elements they seek to graft onto the claim "are not actually limitations," but if so why not simply agree to Smart Mobile's "plain meaning" construction? Finally, Defendants claim that Smart Mobile "inadvertently agreed" with their position in a snippet pulled out of context from a portion of one sentence of Smart Mobile's Responsive Brief, but review of the relevant paragraph of the brief shows that that is not so. Dkt. 66, p. 27.

J. "channel" ('943 Patent, claims 1-2, 5, 8, 12; '083 Patent, claims 1-2, 5, 8, 12)

In its Responsive Brief, Smart Mobile showed that (i) the ordinary meaning of "channel" encompasses a path or link through which information passes within a device, as well as between devices, (ii) the claims use "channel" to refer to processing channels as well as communication channels, (iii) the specification teaches the use of multiple channels for parallel processing of data streams, (iv) the prosecution file supports Smart Mobile's construction, and (v) there is no reason to read a physical path into the construction of "channel."

In response, Defendants first contend that "channel" must be construed as a "communication channel," but the dictionaries and definitions they rely on are ***specifically directed to communication channels***, not to "channels." Dkt. 66, pp. 27-28. They contend that these narrow definitions are correct because the claimed devices are communication devices. However, their logic fails because communication devices (like most other electronic devices) must have internal processing channels, so their "communication device" argument does not support limiting the construction to communication channels. Defendants highlight the definition of "channel" in The Microsoft Computer Dictionary, which states that a "channel can be either ***internal*** or external to a microcomputer," Ex. 1006 [Dkt. 68-6], p. 81, but then assert without explanation that "information paths or links 'within' a device and within or between 'components'" are not within the scope of this definition. This is frivolous—"***internal*** . . . to a microcomputer" clearly refers to channels within a device. Dkt. 66, p. 28. They assert that a microcomputer can have internal or external transmitters and receivers, but even if true this does not support ***limiting*** the scope of "channel" to a communication channel. They also note that the Microsoft Computer Dictionary definition of "channel" includes an alternative definition for the term specifically limited to the communications context, but that does nothing for their argument because, again, the claim term is "channel," not "communication channel."

Defendants next assert that the claims of the '083 Patent "cannot" refer to internal processing channels, because the claims do not use the term "process *on* multiple channels." This is frivolous. As Smart Mobile showed in its Responsive Brief, the claims of the '083 Patent repeatedly use "channel" to refer to processing data streams and multiple channels in parallel, including "via multiple channels," Dkt. 66, pp. 28-29; Ex. 12, 12:8-10; 13:12-14; 14:3-6, and the '943 Patent claims recite that the processer "comprises" multiple channels. Ex. 14, 12:7-8, 45-46; 13:4-5; 14:4-5. The claim language is clear, and refers to processing channels internal to the device. Ex. 1001, ¶177. Defendants do not back their argument up with any explanation from an expert as to why their "process on" language is required, or as to why "processing multiple channels" would be understood by a POSITA to refer to "channel inputs." This is nothing but conclusory attorney argument, entitled to no weight.

Defendants' remaining arguments from the claim language fare no better. They assert that "[t]he claims separately refer to processing in parallel and the processing of multiple channels," but that is false, as shown above. They also contend that "[t]he parallel processing is also done by the device or system, which would have been understood at the alleged invention date to be performed by multiple processors," but they proffer no evidence to support that factual assertion. And their assertion that the '739 Application[2] references input/output channels is irrelevant because it clearly also references processing channels—"four separate processors may be used or a four channel monolithic processor specifically designed for this purpose may be used." Ex. 1009, [Dkt. 68-7], at SM0000253. Defendants insist that this is referring only to

[2] Five of the '434 Family patents claim priority to the '739 Application, and incorporate it into the specification by reference. Defendants refer to the '739 Application as "the '789 Patent."

"input paths," but they proffer no support for this assertion, which is contrary to the plain meaning of the text.

Defendants next accuse Smart Mobile of misrepresenting the specification, but here again they fail. They contend that Smart Mobile omitted a "critical" sentence from its quote from the Abstract, but this sentence speaks generally to the benefits of multiple channels, either internal or external to the device, so it does not support Defendants' construction of channels. Ex. 12, Abstract. This is apparent from the fact that the very next sentence speaks to the benefits of including a single processor with "multiple channels ***for parallel processing*** of each data stream . . . ." Ex. 12, Abstract (emphasis added). Tellingly, Defendants do not even address Smart Mobile's three other citations to supporting content in the specification, or Dr. Cooklev's supporting declaration testimony. Dkt. 66, p. 29; Ex. 1001, ¶¶176-81.

Defendants turn next to the prosecution file. Smart Mobile showed that during prosecution of the '943 Patent the applicant added "wherein the processor comprises multiple channels configured to process the first data stream and the second data stream in parallel" in order to overcome prior art, and that this language was carried over identically or in amended form during prosecution of the '083 Patent. Dkt. 66, p. 30; Ex. 1010 [Dkt. 68-8], SM0004647-53; Ex. 1011, SM0003863-69, 3982-86. Defendants respond that Smart Mobile's proposed construction would render the amended claim language "meaningless" because "every prior art processor inherently has 'channels' according to SMT because they all pass information within them." This ignores the text of the amended claim, which recites a specific structure and configuration of the processor, in particular that the multiple channels of the processor are "configured to process the first data stream and the second data stream ***in parallel***." Ex. 1010, at SM0004647 (emphasis added). Defendants next assert that the examiner pointed to prior art

disclosing multiple transmit channels, but the office action they point to was entered ***after*** the amendment, and the applicant's comments accompanying the relevant amendment make it clear that the language was added to distinguish the cited art on the basis of a processor comprising multiple channels for parallel processing of data streams. Ex. 1010, at SM0004652-53.

Finally, Defendants contend that their construction does not require a physical communication path. But that is what they argued in their Claim Construction Brief. Dkt. 46, p. 31. While they appear to have abandoned that position, they now claim that Smart Mobile's construction would subsume other "information links." However, this objection applies more to Defendants' construction ("communication path . . .") than to Smart Mobile's, and in any event they proffer no argument or authority suggesting that the recitation of "paths," "network path" or "signal stream" somehow forecloses Smart Mobile's construction of "channel."

In sum, Defendants proffer nothing but attorney argument that the specification is "consistent with" their proposed construction. As Smart Mobile showed in its Responsive Brief, that is not sufficient. Dkt. 66, p. 29. They fail to proffer expert testimony supporting their assertions as to how the disclosure would be understood by a POSITA, and they fail to demonstrate any "expression of manifest exclusion or restriction," *Thorner v. Sony Computer Entertainment America LLC*, 669 F.3d 1362, 1366-68 (Fed. Cir. 2012), that would compel their restrictive construction. The Court should adopt Smart Mobile's construction.

K. "the device is … further configured with enhanced capabilities to differentiate between various signals or to combine multiple paths into a single communication channel"

Smart Mobile showed in its Responsive Brief that the specification provides examples of the "enhanced capabilities" recited in the claim, and provided a construction that differentiates claim 2 over claim 1, for example with respect to the requirement of "at least two . . . transmit/receive units . . . ." Dkt. 66, p. 32. In response, Defendants ignore the specification

content that provides the baseline against which the enhanced capabilities are compared, Dkt. 66, pp. 32-33, and mischaracterize claim 1 as requiring ***multiple*** transmitters and receivers. Moreover, it bears noting that Defendants did not even bother to submit testimony from an expert to bolster their indefiniteness argument, when the standard requires that they show that the claim language fails to inform ***a POSITA*** of the scope of the claim with reasonable certainty, by ***clear and convincing evidence***. *Cox Commc'ns, Inc. v. Sprint Commc'n Co. LP*, 838 F.3d 1224, 1231 (Fed. Cir. 2016). The Court should reject their spurious indefiniteness argument.

L. "interface"

In its Responsive Brief, Smart Mobile showed that (i) "interface" was known in 1999 to include virtual interfaces, such as interfaces "between two applications," (ii) several original claims of the '653 and '946 Patents expressly recited virtual interfaces and application interfaces, (iii) the specification teaches virtual interfaces, and (iv) the '739 Application, to which the patents claim priority, taught virtual interfaces. Dkt. 66, pp. 34-39.

In response, Defendants do not seriously contest either (i) or (ii). They assert without evidence that a POSITA would not have understood the term to include "virtual connections," but their own opening brief concedes that "some definitions of 'interface' may include software as an alternative definition, ..." Dkt. 46, p. 36. And they say nothing about claim 10 of the '653 and '946 Patents, which expressly recites "virtualized" interfaces. This is fatal to their position, because a construction that excludes recited subject matter is nearly always erroneous. *CytoLogix Corp. v. Ventana Medical Systems, Inc*., 424 F.3d 1168, 1173 (Fed. Cir. 2005).

Defendants' primary argument appears to be that construing "interface" to include a virtual connection between software elements would render the claims invalid for lack of written description. Smart Mobile showed in its Responsive Brief that Defendants' written description argument fails for at least the reason that the dependent claims that expressly recite virtual and

application interfaces were included in the applications as filed. Dkt. 66, pp. 35-36. In response, Defendants note that the applications including these claims were filed in 2014 and 2015. However, Defendants' argument is based on a purported lack of written description, not a deficient priority claim, so their *Agilent* case—which involved an interference—is inapposite. *Agilent Techs., Inc. v. Affymetrix, Inc*., 567 F.3d 1366, 1383 (Fed. Cir. 2009). Defendants then contend that "even if SMT's identified claims are considered 'part of the specification,' they still do not 'convey[] to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date,'" but they fail to explain why that is so, they proffer no evidence to support their assertion, and their two case citations do nothing to bolster their position.[3] So their argument fails.

Moreover, as shown in Smart Mobile's Responsive Brief, Dkt. 66, pp. 36-38, the specification provides whatever additional support is required. For example, Dr. Cooklev testified that Figure 10 and the accompanying text inform a POSITA that a virtual interface for transmitting the data stream to Server C would be generated upstream of data stream 1028. Dkt. 66, p. 37; Ex. 1001, ¶187. Defendants do not seriously address this showing, instead stating that "'interfacing' involves transferring data on a physical connection between" two hardware devices, merely repeating their preferred construction without making any real effort to prove it. They dismiss the specification's reference to a web server function as only discussing "physical connections," ignoring Dr. Cooklev's explanation that "this IP-based web server would allow for

[3] *Ariad Pharms., Inc. v. Eli Lilly & Co*., 598 F.3d 1336 (Fed. Cir. 2010) involved method claims relating to the regulation of gene expression by specified transcription factor, raising issues that are "particularly acute in the biological arts." *Id*., at 1352-53. Here, the claims at issue are device or system claims and are not in the field of biological inventions. In *Amgen Inc. v. Hoechst Marion Roussel, Inc*., 314 F.3d 1313, 1330 (Fed. Cir. 2003), the court affirmed the district court's finding that the defendant had ***failed*** to prove lack of written description by clear and convincing evidence.

data communication by software interfaces between applications on the device, within the device and between the device and other devices." Ex. 1001, ¶188. They also ignore the disclosure in the specification of a VPN embodiment, which includes virtual interfaces. Ex. 7, 8:38-65, Fig. 13; Ex. 1001, ¶186 ("A POSITA would understand 'interface' to include virtual interfaces in claims 1, 5, 6 and 10 of the '946 Patent;" claim 5 recites a VPN). They assert that Smart Mobile's showing is "purely attorney argument," but that is false—Smart Mobile's showing is supported by citations to relevant portions of the specification and prosecution file as well as by Dr. Cooklev's explanation as to how a POSITA would understand those passages. Dkt. 66, pp. 34-39; Ex. 1001, ¶¶182-92. They incorrectly characterize Dr. Cooklev's declaration evidence as conclusory, while offering nothing but attorney argument concerning how a POSITA would understand the disclosures of the specification.

Defendants also attack Smart Mobile's showing that the '739 Application teaches the use of virtual interfaces. Smart Mobile supported its showing with an explanation by Dr. Cooklev that the '739 Application's references to interfaces between software functionalities and "to a software programmable interface indicates [to a POSITA] that the interface is virtualized." Ex. 1001, ¶191. In response, Defendants proffer nothing but attorney argument which, remarkably, concedes that this text in the '739 Application teaches "'software programmable to interface' with hardware communication lines." Dkt. 79, p. 17 (emphasis omitted). While Defendants posit a distinction between "software programmable to interface" and a "software programmable interface," they proffer no expert declaration to respond to Dr. Cooklev on this point and in any event their argument ignores the pertinent text. The '739 Application states that "each of the input/output channels could be hardwired designed ***or software programmable to interface with*** various types of input/output data communication lines." Dkt. 66, p. 38; Ex. 1001, ¶191

(emphasis added). So the text teaches not just that software is programmable to interface with hardware, but that I/O ***channels*** are "software programmable to interface" with I/O ***lines***. As Dr. Cooklev explained, this teaches a software programmable interface. Ex. 1001, ¶192. Defendants fail to rebut Smart Mobile's showing that the '739 Application discloses virtual interfaces.

Defendants next contend that Smart Mobile's construction would render the claims invalid for lack of enablement. However, Defendants do not even try to prove that a POSITA would not know how to program or configure a virtual interface. Their argument that Smart Mobile's construction would render the claims invalid for lack of enablement is spurious.

In sum, Defendants do not rebut Smart Mobile's showing that the many uses of "interface" in the specification encompass virtual interfaces, because that is how the term was understood in 1999. The court should therefore adopt Smart Mobile's proposed construction.

M. "multiplex / multiplexes / multiplexed / multiplexing"

In its Responsive Brief, Smart Mobile showed that (i) the claims use "multiplexed" in the context of data and signal streams transferred via parallel (*i.e.*, multiple, not just single) paths, (ii) the specification teaches that data and signal streams may be transferred via parallel paths and "multiplexed at each end" and that data may be multiplexed for wireless transmission "over one ***or more*** channels," (iii) the '739 Application depicts an embodiment that accepts two input signal streams and outputs ***four*** signal streams via an "OUTPUT MUX" (*i.e.*, a multiplexer), illustrating splitting the two input signals streams into four output signal streams, and (iv) Defendants' construction would undermine the purpose of the invention. Dkt. 66, pp. 40-45.

Defendants' response does not even address points (i) and (iv), which stand unrebutted. Moreover, Defendants' response fails even as to the points they attempt to contest. They first contend that their proposed construction is the "ordinary meaning" of multiplexing, and that Smart Mobile must establish a "clear intent" to deviate from it. This is incorrect; the evidence

shows that the ordinary meaning of "multiplexing" to a POSITA as of 1999 aligns with Smart Mobile's construction, not Defendants' narrower construction. This is proven not only by the expert testimony previously submitted by Smart Mobile, Ex. 1001, ¶193, but also by ***Defendants' own evidence*** submitted in the co-pending Petitions for Inter Partes Review that they have filed regarding the '434 Family patents. In *Computer Networks*, A. Tanenbaum (3rd ed. 1996), submitted by Defendants in IPR2022-1249 as Exhibit 1012 concerning the '946 Patent,[4] the author describes "upward multiplexing" (in which different transport connections are multiplexed onto the same network connection) and "downward multiplexing," in which a single transport connection is multiplexed onto multiple network connections.

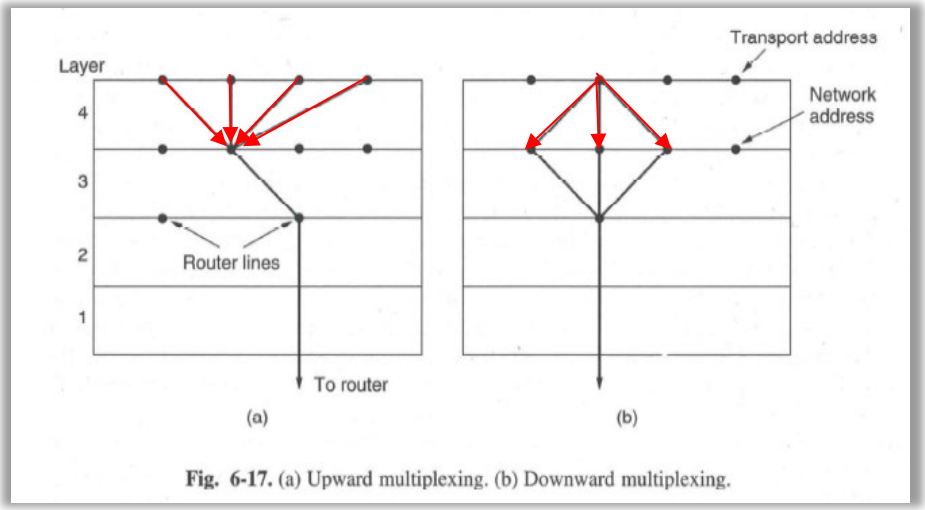

Fig. 6-17. (a) Upward multiplexing. (b) Downward multiplexing.

Ex. 1015, pp. 507-08 (emphasis added). Moreover, the author states that although Figure 6-17(b) shows the multiple virtual circuits being sent out over one line, the multiple network connections may be implemented over ***multiple output lines***: "[i]f multiple output lines are available, downward multiplexing can also be used to increase the performance even more." Id.,

[4] This reference was also submitted as Exhibit 1012 in IPR2022-1248 (concerning the '653 Patent) and as Exhibit 1011 in IPR2022-1223 (concerning the '075 Patent). The relevant portion of this reference has been excerpted here as Exhibit 1015.

p. 508. And Defendants' IPR expert, opining regarding POSITA knowledge of "multiplexing techniques," agrees:

> EX-1012, 507 ("Multiplexing can also be useful in the transport layer for another reason … Suppose, for example, that a certain user needs a high-bandwidth connection from time-to-time. … One possible solution is to have the transport layer open multiple network connections and distribute the traffic among them on a round-robin basis, as indicated in Fig. 6-17(b). This modus operandi is called downward multiplexing."), ...

Exs. 1016-17.[5] And, as Smart Mobile noted in its Responsive Brief, the claims and the specification both associate multiplexing with increased performance. Dkt. 66, pp. 40-42; Ex. 1001, ¶¶193-95. This evidence, from Defendants' own exhibit and expert, further bolsters Smart Mobile's showing that, as of 1999, "multiplexing" was understood to include splitting a single stream into multiple streams for transmission.

In addition, Defendants submitted with their Reply brief a new exhibit that states that "[t]he opposite of multiplexing is inverse multiplexing (IMUX), which breaks one data stream into several related data streams." Ex. 56, [Dkt. 81-2]. The "Last updated" date for this document is Jun 29, 2012, which is more than ten years past the relevant priority dates (1999 or 2000, depending on the patent), so it lacks any probative value, is likely to cause confusion and should be disregarded. Fed. R. Evid. 401, 403. Should the Court be inclined to consider it, this exhibit supports Smart Mobile, because the "inverse multiplexing" that it references is exemplified by the "downward multiplexing" of Exhibit 1015 and by the numerous examples of multiplexing across parallel paths to increase data transfer rate or throughput contained in the claims, specification and prosecution file. Dkt. 66, pp. 40-44; Ex. 1001, ¶¶193-200.

[5] Dr. Jensen was engaged by Apple in IPR2022-1223, and by Samsung in IPR2022-1249.

With respect to the specification, Defendants largely fail to engage Smart Mobile's showing that a POSITA would read the specification to support Smart Mobile's construction. Defendants assert that there are no "express disclosures" of the precise language of Smart Mobile's construction, but claim construction is not a process of attempting to find the proposed construction set out verbatim in the specification. *Novartis*, 21 F.4th at 1373. Smart Mobile submitted the declaration of Dr. Cooklev explaining how and why a POSITA would have understood the specification to teach multiplexing as Smart Mobile construes it, Ex. 1001, ¶¶193-200; in response, Defendants proffer nothing but attorney argument. Defendants assert that "requiring that 'the data transfer rate be 'improved' by the use of parallel paths' does not disclose or enable 'splitting [a] data stream into parallel paths,'" but they offer nothing to rebut Dr. Cooklev's explanation that the disclosures of improved throughput or data transfer rates via parallel paths in the claims and the specification would inform a POSITA that "splitting the signal or data streams into multiple paths (at the sending end) and combining the multiple paths back into a single signal or data stream (at the receiving end) are both aspects of multiplexing as the term is used in the patents." Ex. 1001, ¶196. And their example of a disclosure that purportedly contradicts Smart Mobile's construction actually ***supports*** Smart Mobile's construction because it teaches that "faster data rates" may be achieved by, for example, accessing "video, audio or other uses . . . simultaneously . . . through dedicated or ***multiplexed antenna paths*** . . . ." Ex. 7, 10:10-21 (emphasis added); Dkt. 66, p. 42; Ex. 1001, ¶197.

Next, Defendants characterize as "the crux of the dispute" that multiplexing cannot encompass "combining or splitting '*data* streams' independent from physical communication channels" because "[s]uch a construction would cover "virtual interfaces" and software-based Application Programming Interfaces (APIs) . . . ." This argument fails for multiple reasons.

First, Smart Mobile's construction of multiplexing is ***not*** coterminous with its construction of "interface," for at least the reasons that an interface (virtual or otherwise) need not multiplex, and a data stream need not be multiplexed at or by an interface. Second, as shown above and in Smart Mobile's Responsive Brief, virtual interfaces and application interfaces ***are*** taught in the specification. Dkt. 66, pp. 22-24, 37; Ex. 1001, ¶¶170-74, 184-92. Third, Defendants' argument assumes that "channels" are limited to what they refer to as "communication channels," which is incorrect. *Supra*, pp. 10-13; Dkt. 66, pp. 27-31. Finally, Defendants never explain what they mean by "independent from physical communication channels," or proffer any expert testimony as to why a POSITA would conclude that this purported issue supports their construction.

Defendants also fail to meaningfully address Smart Mobile's showing that the '739 Application expressly discloses multiplexing onto multiple channels. In a footnote, Defendants state that Figure 6 of the '739 Application "is consistent with" their construction, but as usual there is no evidentiary support for their statement. In any event, it is immaterial to the parties' dispute—the issue is not whether Figure 6 is consistent with Defendants' "interleaving" construction, but whether it informs a POSITA that multiplexing (via the "INPUT MUX" and "OUTPUT MUX" of Figure 6) encompasses splitting a stream into multiple streams. It expressly depicts such an operation, Dkt. 66, pp. 43-44; Ex. 1001, ¶¶199-200; Ex. 1009, at SM0000349, so it supports Smart Mobile's construction. Moreover, Defendants' statement that demultiplexing occurs at the "device input" undermines their position, since the device input of Figure 6 is identified as "INPUT MUX," *i.e.*, an input multiplexer (not demultiplexer). *Id.*

Finally, Defendants' attempt to artificially narrow the scope of "multiplexing" via their written description and enablement arguments fails because they make no effort to actually show a lack of written description or enablement, let alone by clear and convincing evidence.

III. CONCLUSION

For the reasons discussed, the Court should construe the disputed claims as proposed by Smart Mobile.

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Respectfully submitted,

/s/ Philip J. Graves
Philip J. Graves *(Pro Hac Vice)*
CA State Bar No. 153441
Greer N. Shaw *(Pro Hac Vice)*
CA State Bar No. 197960
GRAVES & SHAW LLP
355 S. Grand Ave., Suite 2450
Los Angeles, CA 90071
Telephone: (213) 204-5101
Email: pgraves@gravesshaw.com
Email: gshaw@gravesshaw.com

STECKLER WAYNE CHERRY & LOVE, PLLC
8416 Old McGregor Road
Waco, Texas 76712
Telephone: (254) 651-3690
Facsimile: (254) 651-3689
Craig D. Cherry (State Bar No. 24012419)
Email: craig@swclaw.com
Mark D. Siegmund (State Bar No. 24117055)
Email: mark@swclaw.com

Paul J. Skiermont (TX Bar No. 24033073)
pskiermont@skiermontderby.com
Steven J. Udick (TX Bar No. 24079884)
sudick@skiermontderby.com
Todd A. Martin (TX Bar No. 24066556)
tmartin@skiermontderby.com
SKIERMONT DERBY LLP
1601 Elm Street, Suite 4400
Dallas, TX 75201
Phone: (214) 978-6600
Fax: (214) 978-6601

Rex Hwang (CA Bar No. 221079)
rhwang@skiermontderby.com
SKIERMONT DERBY LLP
633 W. Fifth Street, Suite 5800
Los Angeles, CA 90071
Phone: (213) 788-4500
Fax: (213) 788-4545

COUNSEL FOR PLAINTIFF
SMART MOBILE TECHNOLOGIES LLC

CERTIFICATE OF SERVICE

I hereby certify that counsel of record who are deemed to have consented to electronic service are being served this 30th day of November, 2022, with a copy of this document via the Court's CM/ECF system per Local Rule CV-5(a). Any other counsel of record will be served by electronic mail, facsimile transmission and/or first-class mail on this same date.

/s/ Philip J. Graves
Philip J. Graves